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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/284,578 | 10/08/1999 | AKIKO MIYA | 325/E6627 | 2522 |

7590 09/06/2002
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WASHINGTON, DC 20006

EXAMINER

WEBMAN, EDWARD J

| ART UNIT | PAPER NUMBER |
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1617

DATE MAILED: 09/06/2002

16

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/284578

Applicant(s)

MAYIA

Examiner

WEBMAN

Group Art Unit

1617

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 5/21/02
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-9, 11, 23-26, 30, 31 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-9, 11, 23-26, 30, 31 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) _____.
- ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____.

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 11, 23-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Guire.

Guire teaches a solid surface modified with a linker covalently bound to the surface by photo activation of one linking group, the other linking group being bound to a biocompatible agent (abstract). Antibiotics are specified (column 6, line 16), including penicillin (claim 6). A linkage of a carboxyl group to nitrogen or oxygen is specified (column 7, lines 36-39). Polyolefins are specified (column 4, line 33).

Applicants argue that Guire ^{DOES NOT TEACH A GRAFT POLYMER SUBSTRATE,} however, it is argued that the linking group ¹ constitutes a graft. Guire teaches binding ¹ the linking moiety to the polymer substrate and then covalently binding the biocompatible agent to the linker (column 3 lines 17-28).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily

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published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-6, 11, 23-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Patnaik et al '165.

Patnaik et al '165 teach a PTFE backbone bound to a polymeric spacer with amine terminal bonds which is in turn bound to a bioactive molecule (abstract, column 4 lines 54-59). An amide bond is specified column 5 lines 1-5). Antibiotics are specified (column 6, line 29). Polymeric spacers are disclosed (column 5 lines 54-59).

Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guire as applied to claims 1-7, 11, 23-26 above, and further in view of Notice under MPEP 2148.03.

Guire is discussed above.

The examiner takes notice under MPEP 2144.03 that both tetracycline and benanomicin contain a hydroxyl groups.

It would have been obvious to one of ordinary skill to attach tetracycline or benanomicin to the polymer of Guire in view of the fact that they both contain hydroxyl groups, which can be reacted with NOS of Guire.

Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patnaik et al '165 as applied to claims 1-6, 11, 23-26 above, and further in view of notice under MPEP 2144.03.

Patnaik et al '165 is discussed above. The examiner takes notice under MPEP 2144.03 that penicillin, Lymecycline and benanomicin contain a carboxylic acid group.

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It would have been obvious to one of ordinary skill to attach penicillin, lymecycline, or benanomicin to the polymer of Patnaik et al, '165 in view of the fact that they contain a carboxylic acid group which can be reacted with the amine terminated spacer of Patnaik et al '165.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 11, 23, 25, 30-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Sugo.

Sugo teach graft polymerization of a monomer to a polyolefin base and introducing ~~and anytime~~ a microbial group to the grafted chain (abstract). Graft polymerization with a gas of a reactive monomer is specified (column 3 lines 24-29). Further reaction with amino acids is disclosed to form an antimicrobial group (column 3 lines 32-48).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application

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being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-7, 9, 11, 23, 25, 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Goldberg et al.

6/30/03
Goldberg et al teach a surface graft-Polymerized with a monomer wherein a biofunctional agent is chemically bonded. ^(abstract) Substrates include polyolefins (column 15 line 1). Penicillin and tetracycline¹ are disclosed (column 17 lines 56, 57). As to the claimed process, process steps are not considered patentable during prosecution of product-by-process claims before the PTO. g

No claims allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Webman whose telephone number is (703) 308-4432. The examiner can normally be reached on Monday to Friday 9 Am 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minna Moezie can be reached on (703) 308-0570. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3592 for regular communications and (703) 305-3592 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

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Webman/LR
August 14, 2002



EDWARD J. WEBMAN
PRIMARY EXAMINER
GROUP 1500